

REMARKS

Objection to Specification

The specification was objected to because it does not include a cross-reference to related applications in the first line.

Accordingly, the specification has been amended to overcome the objection.

Rejections under 35 USC §103(a)

Claims 3, 4, and 9-14 were rejected under 35 USC §103(a) as being obvious over Hirozawa et al (JP 62-074048) and Kaino et al (JP 01-117303) in view of Makita et al (JP 2001-135511), Kadokura et al (USP 4,784,739) and Nishiuchi et al (USP 6,861,089).

Applicants respectfully traverse this rejection.

Amended claim 3 specifically recites the steps of “inserting an electrode wire into the hole of the magnet, supporting the magnet on the electrode wire in a depressurized tank, placing the electrode wire between oppositely-disposed targets in the tank, transforming an R metal (. . .) or an alloy containing an R metal into fine particles by a sputtering method, rotating the magnet with the electrode wire as a rotation shaft, allowing the fine particles to fly and deposit onto the whole or part of the surface of the magnet, allowing the fine particles to diffuse and permeate from the surface of the magnet to the inside of the magnet to at least a depth corresponding to a radius of a grain exposed on the outermost surface of the magnet.”

Hirozawa et al, Kaino et al and Makita et al do not specify how the sputtering is carried out.

Kadokura et al describes the sputtering arrangement as follows:

The cathode targets T and T' are electrically connected to a later-described electric sputtering power source 50. The substrate holder unit 40 is rotatably supported by suitable support bracket and includes a supply roll 41 for supplying the substrate S, a support roll 42, and winding roll 43. The substrate holder unit 40 supports and moves the substrate S in such a manner that the substrate S always faces the space extending between the opposed targets T and T', and is arranged to be perpendicular to the sputtering surfaces of the targets T and T'.

(Column 5, line 65 to column 6, line 7). Thus, according to Kadokura et al, the substrate holder unit 40 supports and moves the substrate S in such a manner that the substrate S faces the space extending between the opposed targets T and T'. Also, the substrate S is arranged to be perpendicular to the sputtering surfaces of the targets T and T'.

An electrode wire is not inserted into the hole of the magnet to support the magnet on the electrode wire. Also, the electrode wire is not placed between oppositely-disposed targets in the tank.

Nishiuchi et al discloses a method of inhibiting production of projections in metal deposited-film using **vapour deposition** but not sputtering.

Namely, there can be presented an apparatus in which hanger members 160 are revolvably supported circumferentially outside the rotary shaft 156 of the support member 157 that is made rotatable about the rotary shaft 156 on the horizontal rotational axis. The hanger members 160 are provided as holding

members for hanging work pieces 190, each with a center opening, such as ring-shaped magnets.
(Column 10, line 27-34). Thus, according to Nishiuchi et al, the electrode wire is not placed between oppositely-disposed targets in the tank. Also, an R metal or its alloy is not transformed into fine particles by a sputtering method.

Neither Kadokura et al nor Nishiuchi et al discloses placing the electrode wire between oppositely-disposed targets in the tank. Also, there is no suggestion or motivation of combining Kadokura et al and Nishiuchi et al. Even if Kadokura et al and Nishiuchi et al are combined, the hanger members 160 of Nishiuchi et al will be placed to face the space extending between the opposed targets T and T'. Also, the hanger members 160 will be arranged to be perpendicular to the sputtering surfaces of the targets T and T'.

For at least these reasons, claim 3 patentably distinguishes over Hirozawa et al, Kaino et al, Makita et al, Kadokura et al and Nishiuchi et al.

Claim 9 also has been amended to recite “loading a magnet in a wire basket to be freely tumbled, placing the wire basket between oppositely-disposed targets in a depressurized tank, vaporizing an R metal (. . .) or an alloy containing an R metal in the depressurized tank by physical means, allowing the R-metal vapour to fly and deposit onto the whole or part of the surface of the magnet and causing deposition of the vapor there, allowing the R metal vapor to diffuse and permeate from the surface of the magnet to the inside of the magnet to at least a depth corresponding to a radius of a grain exposed on the outermost surface of the magnet.”

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Claim 9 recites, among other things, “placing the wire basket between oppositely-disposed targets in a depressurized tank.” Claim 9 patentably distinguishes over Hirozawa et al, Kaino et al, Makita et al, Kadokura et al and Nishiuchi et al for the reason discussed above.

Claims 4, depending from claim 3, and claims 10-14, depending from claim 9 also patentably distinguish over Hirozawa et al, Kaino et al, Makita et al, Kadokura et al and Nishiuchi et al for at least the same reasons.

Thus, the 35 USC §103(a) rejection should be withdrawn.

Claim 8 was rejected under 35 USC §103(a) as being obvious over Hirozawa et al (JP 62-074048) and Kaino et al (JP 01-117303) in view of Makita et al (JP 2001-135511), Kadokura et al (USP 4,784,739) and Nishiuchi et al (USP 6,861,089) and further in view of Kamiya et al (JP 2000-319778).

Applicants respectfully traverse this rejection.

Claim 8 depends from claim 3. Kamiya et al has been cited for allegedly disclosing “oppositely-disposed ring-like targets in a sputtering process. However, such disclosure of Kamiya et al does not remedy the deficiencies of Hirozawa et al, Kaino et al, Makita et al, Kadokura et al and Nishiuchi et al.

For at least these reasons, claim 8 patentably distinguishes over Hirozawa et al, Kaino et al, Makita et al, Kadokura et al, Nishiuchi et al and Kamiya et al.

Thus, the 35 USC §103(a) rejection should be withdrawn.

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In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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